

XXII. *Catalogue of the Pterophoridae, Tortricidae, and Tineidae of the Madeira Islands, with notes and descriptions of new species.* By the Right Honble. LORD WALSLINGHAM, M.A., LL.D., F.R.S.

[Read Oct. 3rd, 1894.]

A SMALL collection of micro-lepidoptera made by the late T. Vernon Wollaston in Madeira, has been submitted to me by Mr. Bethune-Baker, together with some drawings by the late Professor Westwood of the types described by Wollaston and Stainton now in the British Museum. The specimens, unfortunately, are not in good condition, and the majority of the species have been already dealt with in two papers published by those authors [Wollaston, T. V., "Brief Diagnostic Characters of Undescribed Madeiran Insects," *Ann. and Mag. N.H.* (3 s.), I., 113—124; London, 1858. Stainton, H. T., "Notes on Lepidoptera collected in Madeira by T. V. Wollaston, Esq., with Descriptions of some New Species," *Ann. and Mag. N.H.* (3 s.), III., 211—214; London, 1859].

Such as are new are described below.

The opportunity seems to be favourable for compiling a complete list of the species known to occur in the Madeiras, which will, perhaps, form a useful parallel to the catalogues of micro-lepidoptera of the Canaries, lately published by Dr. Rebel [Rebel, H., "Beitrag zur Micro-lepidopterenfauna des canarischen Archipels," *Ann. K. K. Hofmus.* VII., Heft., 3, 241—284, Taf. XVII., Wien, 1892. "Zur Lepidopterenfauna der Canaren," *Ann. K. K. Hofmus.* IX., Heft. 1, 1—96, Taf. I., Wien, 1894].

Mrs. Holt White has lately published a catalogue of the lepidoptera of Teneriffe [White, A. E. Holt, edited by White, R. Holt, "The Butterflies and Moths of Teneriffe," pp. i.—xii. and 1—107, Pl. I.—IV.; London, 1894], which, though dealing specially with the larger lepidoptera, gives lists of the few micros known to occur in that island.

Mrs. Wollaston's collections from St. Helena (also in the British Museum), of which descriptions were published by herself and the late Francis Walker [Walker, F., in *Meliss' Saint Helena*; London, 1875. Wollaston, Mrs. T. V., "Notes on the Lepidoptera of St. Helena, with Descriptions of New Species," *Ann. and Mag., N.H.* (5 s.), III.; London, 1879: this was republished in pamphlet form], are also important contributions to the study of the subject as connected with these groups of Atlantic islands which lie nearest to the African coast.

The present paper shows that the genus *Blastobasis* and its allies are more than proportionately represented in the Madeiras, and the line of their distribution over the European and American continents is thus connected and emphasized. The genera represented are, for the most part, common to both Europe and America, but the majority of the species recognized are European. One notable exception may be found in *Cosmopteryx pulcherrimella*, Chamb., hitherto recorded only from the United States, this has been very carefully compared with American specimens in my collection.

I have only to express my thanks to Mr. Bethune-Baker for kindly supplying me with so much interesting material, by which he has re-inspired me with the hope of some day making a more complete and representative collection either personally or by deputy, in the Madeiran group of islands which I have long been anxious to visit.

By the list given it will be seen that sixty-six species of micro-lepidoptera are now known to occur in the Madeiras (four are not described); of these, thirty are peculiar to these islands, twelve are common to the Madeiras and Canaries (of which two do not occur elsewhere), and one extends its range only to North Africa. One species is peculiar to the Madeiras and to the United States. Thirty-two species occur in Europe, and of these, nine extend to the Canaries, thirteen to North America, and four to North Africa.

Over thirty species are added to the list, one new genus, seven new species, and two new varieties being here described.

	Canaries.	Europe.	N. America.	N. Africa.	Peculiar to Madeira.
PTEROPHORIDÆ.					
1. Oxyptilus, sp... ..	...	...	...	...	1
2. Platyptilia acanthodactyla, Hb. ...	...	1	1	...	...
3. Alucita monodactyla, L. ...	1	2	2	...	...
TORTRICIDÆ.					
TORTRICINÆ.					
4. Tortrix subcostana, Stn. ...	...	...	...	...	2
5. ,, retiferana, Stn. ...	...	...	...	...	3
6. ,, subjunctana, Wlsth. ...	...	...	...	...	4
7. ,, reticulata, Stn. ...	...	...	...	...	5
CONCHYLIDINÆ.					
8. Carposina atlanticella, Rbl. ...	...	...	...	...	6
GRAPHOLITHINÆ.					
9. Bactra lanceolana, Hb. ...	...	3	3	1	...
10. Pædisca carduana, Gn. ...	...	4	...	...	...
11. Grapholitha maderæ, Wlsth. ...	2	...	...	...	...
12. Carpocapsa grossana, Hw. ...	...	5	...	...	...
13. ,, splendana, Hb. ...	...	6	...	...	...
14. Steganoptycha signatana, Dgl. ...	...	7	...	...	...
15. ,, sp. ...	...	...	...	...	7
TINEIDÆ.					
TINEINÆ.					
16. Trichophaga abruptella, Wlsth. ...	3 (2)	...	...	2	...
17. Tinea pelliionella, L. ...	4	8	4	...	...
18. ,, nigripunctella, Hw. ...	...	9	...	...	...
19. ,, irrorella, Wlsth. ...	...	...	...	...	8
20. ,, sp. ...	...	...	...	...	9
21. Tineola biselliella, Humm. ...	...	10	5	3	...
22. ,, allutella, Rbl. ...	5	...	...	...	...
23. Oenophila V-flavum, Hw. ...	...	11	...	...	...
24. Bedellia somnulentella, Z. ...	...	12	6	...	...
HYPONOMEUTINÆ.					
25. Hyponomeuta bakeri, Wlsm. ...	...	...	...	...	10
PLUTELLINÆ.					
26. Plutella cruciferarum, Z. ...	6	13	7	4	...
GELECHIANÆ.					
27. Lita pulchra, Wlsth. ...	...	...	...	...	11
28. ,, submissella, Stn. ...	...	14	...	...	...
29. ,, ocellatella, Stn. ...	...	15	...	...	...
30. ,, portosanctana, Stn. ...	...	...	...	...	12
31. Bryotropha domestica, Hw. ...	...	16	...	...	...
32. Sitotroga cerealella, Oliv. ...	...	7	17	8	...
33. Anacamptis albipalpella, H.S. ...	...	18	...	...	...
34. ,, elachistella, Stn. ...	...	...	...	...	13
35. ,, wollastoni, Wlsm. ...	...	...	...	...	14
GLYPHIPTERYGINÆ.					
36. Choreutis bjer kandrella, Thnb. ...	8	19	9	...	...
37. Simaethis memorana, Hb. ...	9	20	...	...	...
38. ,, oxyacanthella, L. ...	...	21	...	...	...
39. Glyphipteryx, sp. ...	...	...	...	...	15

	Canaries.	Europe.	N. America.	N. Africa.	Peculiar to Madeira.
<i>DEPRESSARIANÆ.</i>					
40.	Depressaria conciliatella, Rbl.	10	22	...	...
41.	" aplana, F. ... ..	...	23	10	...
42.	Siganorosis heracliana, D.G. ... ..	...	24	11	...
<i>ŒCOPHORINÆ.</i>					
43.	Œcophora pseudospretella, Stn. ... ..	...	25	12	...
<i>BLASTOBASINÆ.</i>					
44.	Endrosis lacteella, Schiff. ... ..	...	26	13	...
45.	Blastobasis lavernella, Wlsm. ... ..	...	...	...	16
46.	" decolorella, Wlsm. ... ..	...	...	...	17
47.	" fuscomaculella, Rag.	11	27	...	...
48.	" desertarum, Wlsm. ... ..	...	...	...	18
48A.	" desertarum + radiata, Wlsm. ... ..	...	...	...	18A
49.	" lignea, Wlsm. ... ..	...	...	...	19
49A.	" lignea + adustella, Wlsm. ... ..	...	...	...	19A
50.	" ochreopalpella, Wlsm. ... ..	...	...	...	20
51.	" marmorosella, Wlsm. ... ..	...	...	...	21
52.	" nigromaculata, Wlsm. ... ..	...	...	...	22
53.	" aurantiaca, Wlsm. ... ..	...	...	...	23
54.	Epistetus divisus, Wlsm. ... ..	...	...	...	24
55.	" pica, Wlsm. ... ..	...	...	...	25
56.	Hypatima fasciata, Stn. ... ..	...	...	...	26
<i>LAVERNINÆ.</i>					
57.	Laverna vittata, Wlsm. ... ..	...	...	...	27
58.	" rebeli, Wlsm. ... ..	...	...	...	28
59.	Chauliodus dancellus, Peyr. ... ..	...	28	...	...
60.	Asychna insularis, Wlsm. ... ..	...	...	...	29
<i>COSMOPTERYGINÆ.</i>					
61.	Cosmopteryx pulcherrimella, Chamb. ... ..	...	...	14	...
<i>GRACILARIANÆ.</i>					
62.	Gracilaria staintoni, Wlsm. ... ..	...	...	...	30
63.	" roseipennella, Hb.	12	29	...	...
64.	" scalariella, Z. ... ..	...	30	...	...
65.	Lithocolletis messaniella, Z. ... ..	...	31	...	5
<i>LYONETIANÆ.</i>					
66.	Phyllobrostis daphneella, Stgr. ... ..	...	32	...	...
66.		12	32	14	5

PTEROPHORIDÆ.

OXYPTILUS, Z.

Oxyptilus, sp.

Madeira; one specimen.

PLATYPTILIA, Hb.

Platyptilia acanthodactyla, Hb.

Pterophorus acanthodactylus, Stn., Ann. and Mag. N. H. (3 s.), III., 214 (1859).¹

Madeira;¹ Funchal, eight specimens (Baker).

ALUCITA, L.

Alucita monodactyla, L.

Pterophorus pterodactylus, Stn., Ann. and Mag. N. H. (3 s.), III., 214 (1859).¹

Pterophorus monodactylus, Rbl., Ann. K. K. Hofmus. VII., 263, 282 (1892).

Madeira; ¹ five specimens (Baker).

TORTRICIDÆ.

TORTRICINÆ.

TORTRIX, L.

Tortrix subcostana, Stn.

Tortrix subcostana, Stn., Ann. and Mag. N. H. (3 s.), III., 211 (1859); ¹ Wkr. Cat. Lp. Ins. B. M., XXVIII., 326 (1863).

Madeira; ¹ San Antonio da Serra, five specimens (Baker).

This species is mentioned by Dr. Rebel as occurring in the Canary Islands [Ann. K. K. Hofmus. IX., 16, 81-82 (1894)] on the evidence of specimens received by me from Teneriffe, collected by Mr. Leech in April, 1885, but a careful comparison leads me to regard these as distinct from the true Madeiran type. They are somewhat smaller, and have invariably a strong indentation on the inner side of the transverse fascia above the middle of the wing which I am unable to find in any specimens from Madeira; moreover, in the absence of a costal fold in the ♂, it cannot be rightly placed in the genus *Cacoecia*.

Tortrix retiferana, Stn.

Tortrix retiferana, Stn., Ann. and Mag. N. H. (3 s.) III., 211-12 (1859); ¹ Wkr. Cat. Lp. Ins. B. M., XXVIII., 326 (1863).

Madeira; ¹ The Mount, five specimens (Baker).

Tortrix subjunctana, Wlstn.

Tortrix subjunctana, Wlstn., Ann. and Mag. N. H. (3 s.), I., 120 (1858); ¹ Wkr. Cat. Lp. Ins. B. M., XXX., 985 (1864).

Madeira,¹

Tortrix (?) *reticulata*, Stn.

Tortrix (?) *reticulata*, Stn., Ann. and Mag. N. H. (3 s.), III., 211 (1859);¹ Wkr. Cat. Lp. Ins. B. M., XXVIII., 326 (1863).

Madeira; ¹ San Antonio da Serra, one specimen (Baker).

CONCHYLIDINÆ.

CARPOSINA, H.S.

Carposina atlanticella, Rbl.

Carposina atlanticella, Rbl., Ann. K. K. Hofmus. IX., 92 (1894).

San Antonio da Serra; three specimens (Baker).
Madeira, May; six specimens. (Leech, Mus. Wlsm.)

GRAPHOLITHINÆ.

BACTRA, Stph.

Bactra lanceolana, Hb.

San Antonio da Serra; four specimens.

PÆDISCA, Ld.

Pædisca carduana, Gn.

Madeira; three specimens (Baker). Mr. Leech also met with this in Madeira in May.

GRAPHOLITHA, Tr.

Grapholitha maderæ, Wlsth.

Ephippiphora maderæ, Wlsth., Ann. and Mag. N. H. (3 s.), I., 120 (1858).¹

Grapholita maderæ, Wkr. Cat. Lp. Ins. B. M., XXX., 990 (1864).²

Grapholitha maderæ, Rbl., Ann. K. K. Hofmus. IX., 17, 87-88 (1894).³

Madeira; ¹ Funchal and The Mount, eleven specimens (Baker). Canaries.³ I have specimens taken by Mr. Leech at Madeira in April, and at Teneriffe in May.

CARPOCAPSA, Tr.

Carpocapsa grossana, Hw.

Madeira; one specimen.

Carpocapsa splendana, Hb.

Madeira ; two specimens.

STEGANOPTYCHA, Stph.

Steganoptycha signatana, Dgl.

Madeira ; The Mount, one specimen.

Steganoptycha, sp.

Madeira ; one specimen.

TINEIDÆ.

TINEINÆ.

TRICHOPHAGA, Rag.

Trichophaga abruptella, Wlston.

N. syn. = *Tinea bipartitella*, Rag.

Tinea abruptella, Wlston., Ann. and Mag. N. H. (3 s.),
I., 120 (1858) ;¹ Wkr., Cat. Lp. Ins., B. M., XXX.,
1003 (1864).

Tinea bipartitella, Rag. Bull. Soc. Ent. Fr., 1892,
lxxxiii.

Tinea tapetzella, Rbl., Ann. K. K. Hofmus. VII., 268-9,
283 (1893) : IX., 17 (1894).

Trichophaga bipartitella, Rag. Ann. Soc. Ent. Fr.
LXIII., 122-4 (1894).

Porto Santo.¹

The synonymy is verified by comparison with Ragonot's type from Tunis ; I have also a specimen from Egypt.

This species differs from *tapetzella*, with which Dr. Rebel appears to have wrongly confounded it, in the straighter outer edge of the dark portion of the wing, which is not produced along the costal margin. I have seen no European specimen possessing this character.

TINEA, L.

Tinea pellionella, L.

Tinea pellionella, Stn., Ann. and Mag. N. H. (3 s.),
III., 212 (1859) ;¹ Rbl., Ann. K. K. Hofmus. VII.,
283 (1892) : IX., 17 (1894).

Madeira ;¹ nine specimens (Baker).

Tinea nigripunctella, Hw.

Tinea nigripunctella, Wlsm., Ent. Mo. Mag., XXX.,
50 (1894)¹.

Madeira ;¹ four specimens (Baker).

Tinea irrorella, Wlston.

Tinea irrorella, Wlston., Ann. and Mag. N. H. (3 s.), I.,
120 (1858);¹ Wkr., Cat. Lp. Ins. B. M., XXX.,
1002 (1864).

Madeira.¹

Tinea, sp.

Madeira; four specimens.

These are closely allied to *irrorella*, Wlston., but differ in having smaller and more scattered markings and no apical spot; they are not in good enough condition for description.

TINEOLA, H.S.

Tineola biselliella, Humm.

Madeira; four specimens.

Tineola allutella, Rbl.

Tineola allutella, Rbl., Ann. K. K. Hofmus. VI., 270-71,
Pl. VII., 3 (1892).¹

Canaries.¹ Madeira; one specimen (Baker).

CENOPHILA, Stph.

Cenophila **V**-*flavum*, Hw.

Oinophila flava, Stn., Ann. and Mag. N. H. (3 s.), III.,
214 (1859).¹

Madeira;¹ four specimens (Baker).

BEDELLIA, Stn.

Bedellia somnulentella, Z.

Bedellia somnulentella, Stn., Ann. and Mag. N. H.
(3 s.), III., 214 (1859).¹

Madeira.¹

HYPONOMEUTINÆ.

HYPONOMEUTA, Z.

Hyponomeuta bakeri, Wlsm., sp. n.

Antennæ slightly serrate in ♂; brownish cinereous. *Palpi* porrect, somewhat recurved, cinereous. *Head* greyish fuscous, posteriorly tinged with ochreous, face whitish. *Thorax* olivaceous.

Forewings rather shining, olive-brown, with a distinct white streak running from the base to above the anal angle, and containing a blackish patch beyond its middle; this streak is narrow at the base, and slightly widened outwards, ending abruptly, but connected in one specimen by a few whitish scales to the pale base of the cilia; before the apex the costal margin is narrowly whitish, and the basal half of the cilia around the apex, to a point opposite to the end of the white streak coming from the base, is also whitish, the outer half of the cilia being brownish-grey. *Hindwings* brownish grey, cilia scarcely paler, with a slight shade running through them near their base. *Abdomen* brownish-grey. *Legs* greyish-cinereous. *Exp. al.*, 20 mm.

Type. ♂ ♀. Mus. Wlsm.

Hab. Madeira; San Antonio da Serra, five specimens.

This species is nearly allied to *egregiellus*, Dp., but the points of difference appear to be constant, the black spot in the white "length-streak" is smaller in *egregiellus*, and does not fill up the whole width of the streak, the colour of *egregiellus* is much greyer, less brown, there is no conspicuous white shade along the base of the cilia, and, moreover, the palpi are shorter and more dependent.

PLUTELLINÆ.

PLUTELLA, Schrk.

Plutella cruciferarum, Z.

Plutella cruciferarum, Stn., Ann. and Mag. N. H. (3 s.), III., 212 (1859);¹ Rbl., Ann., K. K. Hofmus. VII., 283 (1892): IX., 167 (1894).

Madeira;¹ Funchal, and San Antonio da Serra, four specimens (Baker).

GELECHIANÆ.

LITA, Tr.

Lita pulchra, Wltn.

Gelechia pulchra, Wltn., Ann. and Mag. N. H. (3 s.), I., 121 (1858);¹ Wkr., Cat. Lp. Ins. B. M., XXIX., 627 (1864).

Deserta Grande.¹

Lita submissella, Stn.

Gelechia submissella, Stn., Ann. and Mag. N. H. (3 s.), III., 212-13 (1859);¹ Wkr., Cat. Lp. Ins. B. M., XXIX., 628 (1864).

Porto Santo.¹

Lita ocellatella, Stn.

Gelechia ocellatella, Stn., Ent. Ann. 1859. 151-2 (14. XII. 1858):¹ Ann. and Mag. N. H. (3 s.), III., 212 (1859);² Wkr., Cat. Lp. Ins. B. M., XXIX., 628 (1864).

Porto Santo.^{1,2}

Lita portosantana, Stn.

Gelechia portosantana, Stn., Ann. and Mag. N. H. (3 s.), III., 212 (1859);¹ Wkr., Cat. Lp. Ins. B. M., XXIX., 628 (1864).

Porto Santo.¹

BRYOTROPHA, Hein.

Bryotropha domestica, Hw.

Madeira ; one specimen.

SITOTROGA, Hein.

Sitotroga cerealella, Oliv.

Madeira ; Funchal, four specimens.

ANACAMPSIS, Crt.

Anacamopsis albipalpella, H.S.

= *Gelechia anthyllidella*, Stn., Ann. and Mag. N. H. (3 s.), III., 213 (1859).¹

Madeira;¹ one specimen (Baker).

Anacamopsis (?) *elachistella*, Stn.

Gelechia elachistella, Stn., Ann. and Mag. N. H. (3 s.), III., 213 (1859);¹ Wkr., Cat. Lp. Ins. B. M., XXIX., 628 (1864).

Northern Deserta.¹

The type is unset, but it is apparently an *Anacamopsis*.

Anacampsis wollastoni, Wlsm., sp. n.

Antennæ whitish. *Palpi* white, the second joint shaded with brown externally to near its apex, which is slightly tufted. *Head* smooth, shining white. *Thorax* whitish, tegulæ brown, with a creamy white streak along their inner edge. *Forewings* narrow, elongate, acuminate; brown, with a narrow creamy-white streak along the dorsal margin extending to the apex and including the cilia, but interrupted beyond the anal angle by two oblique brown streaks, the first along the apical margin, the second, shorter, in the cilia; beneath the apex a slight darkish line in the base of the cilia around the apex is preceded by a faint indication of a pale, very oblique line, commencing at the anterior extremity of the costal cilia and terminating below the apex of the wing; but this is not observable in worn specimens. *Hindwings* shining, pale grey, cilia pale ochreous. *Abdomen* shining, greyish-ochreous. *Legs* greyish-ochreous. *Esp. al.*, 14-15 mm.

Type. ♂ ♂ ♂. Mus. Wlsm.

Hab. Madeira; seven specimens.

GLYPHIPTERYGINÆ.

CHOREUTIS, Hb.

Choreutis bjerkandrella, Thnb.

Madeira; Funchal, three specimens.

SIMAETHIS, Leach.

Simaethis nemorana, Hb.

Madeira; The Mount, seven specimens.

Simaethis oxyacanthella, L.

= *Simaëthis fabriciana*, Stn., Ann. and Mag. N. H.
(3 s.), III., 210 (1859).¹

Madeira.¹

GLYPHIPTERYX, Hb.

Glyphipteryx, sp.

Madeira; Funchal, one specimen.

DEPRESSARIANÆ.

DEPRESSARIA, Hw.

Depressaria conciliatella, Rbl.

Depressaria conciliatella, Rbl., Ann. K. K. Hofmus. VII., 272-74, 283, Pl. XVII., 14 (1892).¹

Sicily,¹ Canaries;¹ Madeira, Funchal, and The Mount, fourteen specimens (Baker).

If I am right in the identification, this appears to be an exceedingly variable species, a long series showing great variation in colour from pale stone-grey to fawn-brown, with intermediate mottled varieties, having much the appearance of *assimilella*, Tr.

Depressaria applana, F.

Madeira; one specimen.

I am unable to distinguish this specimen from the common English species, but the antennæ are somewhat broken towards their ends.

SIGANOROSIS, Wlgrn.

Siganorosis heracliiana, D.G.

Madeira; one specimen.

ÆCOPHORINÆ.

ÆCOPHORA, Stn.

Æcophora pseudopretella, Stn.

Madeira; one specimen.

BLASTOBASINÆ.

ENDROSIS, Hb.

Endrosis lacteella, Schiff.

= *Endrosis fenestrella*, Stn., Ann. and Mag. N. H. (3 s.), III., 213 (1859).¹

Madeira;¹ San Antonio da Serra, seven specimens (Baker).

BLASTOBASIS, Z.

Veins 3 and 4 of the hindwings coincident, 5 from the same point as 3+4.

Blastobasis larvella, Wlsm., sp. n.

Antennæ notched in the ♂ above the basal joint; greyish, basal joint ochreous. *Palpi* ochreous, the outer side of the second joint shaded with greyish-brown along its lower half nearly to the apex, on the upper side paler than the apical joint. *Head and Thorax* ochreous, tegulae shaded with greyish-brown. *Forewings* ochreous, mixed with reddish-ochreous mottlings, and shaded with patches of greyish-brown, forming two irregular oblique fasciaform bands on the basal half of the wing and two waved streaks on the apical half; the first oblique band passes outwards to the costal margin before the middle from about the inner third of the fold; the second, forming a patch on the dorsal margin at one-third, runs parallel with the first to the costa about the middle, or extending slightly beyond it, the two are sometimes connected by a slight cross-streak on the disc; at the commencement of the costal cilia a greyish-brown quadrangular spot, narrowly produced outwards beyond the cell, reverts to the anal angle joining a spot of the same colour, which is produced upwards and inwards to the end of the cell; between this and the outer of the two oblique fasciæ lies a small spot of the same colour immediately above the fold at two-thirds from the base; cilia greyish-ochreous with a greyish-brown line running around the apex and apical margin near their base, but dying out before reaching the anal angle; this is preceded by a faintly-indicated marginal line on the wing within it. *Hindwings* shining, pale stramineous; cilia pale ochreous. *Abdomen* shining, pale stramineous, the segments indicated by greyish lines. *Legs* shining, pale ochreous. *Exp. al.*, 15-16 mm.

Type. ♂. Mus. Wlsm.

Hab. Madeira; three specimens.

This species is apparently allied to *Blastobasis decolorella*, Wlsm., but has somewhat deeper colouring, with a different arrangement of its more pronounced markings, and has much the general appearance of *Larvna ochraceella*.

Blastobasis decolorella, Wlsth.

Laverna (?) *decolorella*, Wlsth., Ann. and Mag. N. H. (3 s.), I., 122 (1858);¹ Wkr., Cat. Lp. Ins. B. M., XXX., 885 (1864); Rbl., Ann. K. K. Hofmns. IX., 92-3 (1894).

Madeira;¹ Funchal, and San Antonio da Serra, eighteen specimens (Baker). Mr. Leech also took this species at Madeira in May.

This species is a true *Blastobasis*; its neuration is as follows:—

Forewings, 12 veins; 7 and 8 stalked, both to above apex. *Hindwings*, 7 veins; 3 and 4 coincident, 5 from the same point as 3+4, 6 and 7 separate and parallel.

It exhibits considerable variation in size, in colour, and in the distinctness or suffusion of the spots and markings. The drawing made by Westwood was evidently taken from one of the more reddish-ochreous specimens, whereas the more prevalent form appears to be whitish-ochreous or whitish-fawn-colour with brownish and umber spots and scales. The slender dark lines across the abdominal segments are persistent throughout the series, but these occur also in other species, and must not be too much relied on. A description of the well-marked paler forms may be useful.

Antennæ distinctly notched and finely ciliate in the ♂; basal joint enlarged, pectinate beneath; brownish-grey, whitish-fawn beneath. *Palpi* whitish-fawn, second joint externally brown except at its apex. *Head, face, and thorax* whitish-fawn. *Forewings* narrow, elongate, lanceolate towards the depressed apex; very pale fawn, slightly suffused with fawn-brown scales across the middle and at one-third of the fold; an umber patch on the middle of the dorsal margin, above which is an umber spot on the disc before the middle of the wing, followed by a second spot of the same colour below and beyond it; two umber spots at the end of the cell, the lower more conspicuous than the upper and almost parallel with it; these are followed by a sinuate brownish shade commencing on the costa in the beginning of the costal cilia and ending at the anal angle, much bowed outwards in the middle; towards the apex of the wing a few slight brownish dots and scales are scattered about the apex and apical margin; cilia very pale fawn. *Hindwings* shining, pale fawn-grey, cilia very pale ochreous. *Abdomen*

pale greyish-fawn, each segment narrowly margined with blackish. *Legs* whitish-fawn, the anterior pair much shaded with umber-brown. *Exp. al.*, 17-22 mm.

In some specimens the umber dorsal patch is almost entirely obliterated, the markings fainter and more suffused, and the dots around the apex and apical margin coalescing and forming a brownish-grey line along the base of the cilia, which is reduplicated along their middle towards the anal angle.

Blastobasis fuscomaculella, Rag.

N. syn. = *seeboldiella*, Kreithn. = *marmorosella*, Rbl. (nec. Wlston.).

Æcophora fuscomaculella, Rag., Bull. Soc. Ent. Fr., 1879, cxli.¹

Æcophora seeboldiella. Kreithn., Sitzb. Z.-B. Ges. Wien, XXXI., 20-1 (1881).²

Blastobasis marmorosella, Rbl., Ann. K. K. Hofmus. VII., 276-78, 283, Pl. XVII., 6 (1892).³ IX., 18, 90-1 (1894).

Portugal,¹ Spain,² Canaries.³ Madeira (British Museum).

The types of *Æcophora marmorosella*, Wlston., in the British Museum, show that this species has veins 5 and 3+4 of the hindwings distinctly stalked, whereas *Æcophora seeboldiella*, Kreithn., from Bilbao, which Dr. Rebel has identified with this species, has these veins arising from a point, and therein agreeing with a larger and wider-winged species in the British Museum, and with a single specimen in my own collection from the Canaries which was determined for me by Dr. Rebel as *marmorosella*.

The name *fuscomaculella* must stand for the larger form, and *marmorosella* for the smaller and narrower-winged species. I have seen the type of *fuscomaculella*, Rag., and consider it the same as *seeboldiella*, Kreithn., and *marmorosella*, Rbl. (nec. Wlston.).

B-veins 3 and 4 of the hindwings coincident; 5 and 3+4 stalked.

Blastobasis desertarum, Wlston.

N. syn. = *Pterolonche* (?) *maderensis*, Stn.

Coleophora desertarum, Wlston., Ann. and Mag. N. H. (3 s.), I., 122 (1858).¹

Pterolonche (?) *maderensis*, Stn., Ann. and Mag. N. H. (3 s.), III., 213 (1859);² Wkr., Cat. Lp. Ins. B. M. XXIX., 666 (1864).³

Coleophora desertorum, Wkr., Cat. Lp. Ins. B. M., XXX., 879 (1864).⁴

Northern Desert,^{1,2} Porto Santo;² Funchal, nine specimens (Baker).

The specimens of *Coleophora desertorum* in the British Museum are small and somewhat more strongly marked varieties, but are evidently the same species as *maderensis*.

Blastobasis desertorum, Wlsth. + *radiata*, Wlsm., var. n.

Antennae notched at the base in the ♂, basal joint enlarged, with a pecten; fawn-grey. *Palpi* porrect, the second joint projecting beyond the head and clothed with loose scales beneath towards the apex, apical joint short, not recurved; whitish. *Head and Thorax* whitish, the latter shaded with pale fawn-brown. *Forewings* whitish, a pale fawn-brown streak extending from the base immediately below the costal margin and gradually widening outwards to the end of the cell, whence it is continued to the apex, covering half of the outer portion of the wing, the costal margin above it being narrowly pale beyond the middle; a second pale fawn-brown streak from the middle of the base extends to the anal angle and along the base of the cilia nearly to the apex, but not extending beneath the fold, and having above the anal angle a small blackish dot opposite to a still smaller one at the lower margin of the upper streak; there is also an indication of a blackish dot near the outer end of the fold, and the pale intermediate spaces are slightly speckled with blackish scales; cilia fawn-grey. *Hindwings* shining, fawn-white; cilia pale whitish-ochreous. *Abdomen* whitish-ochreous, the segments indicated by slender dark cross-lines. *Legs* whitish-ochreous, hind tibiae clothed with long loose hair-like scales. *Exp. al.*, 14 mm.

Type. ♂. Mus. Wlsm.

Hab. Madeira; Funchal, one specimen.

Blastobasis lignea, Wlsm., sp. n.

Antennae pale greyish-fuscous; basal joint enlarged, tufted and notched in the male, pale cinereous. *Palpi* pale cinereous, shaded and mottled with greyish-fuscous externally. *Head and Thorax* pale cinereous, the latter shaded with greyish-fuscous. *Forewings* pale cinereous, much shaded and speckled with greyish-fuscous,

with a slight purplish gloss; five small blackish spots (the first on the disc before the middle is sometimes connected with one on the middle of the fold below, and somewhat before it; a small one on the lower edge of the cell lies halfway between these and two parallel spots, the one above the other, at the outer end of the cell); around the apex and apical margin is a series of six or eight ill-defined greyish-fuscous spots along the base of the cilia which are greyish-cinereous, somewhat darker towards the apex. *Hind-wings* very pale cinereous with pale greyish-cinereous cilia. *Abdomen* missing. *Legs* pale cinereous, somewhat speckled and shaded with greyish-fuscous externally. *Exp. al.*, ♂ 14, ♀ 19 mm.

Type. ♂♂ ♀. Mus. Wlsm.

Hab. Madeira; sixteen specimens.

Blastobasis liguca, Wlsm. + *adustella*, Wlsm., n. var.

In a single specimen the darker shading is more conspicuous, and the two inner spots are merged in an angulated fascia, leaving the dorsal margin at one-third and tending obliquely outwards to the disc before the middle, where it is angulated back towards the costa from what should be the position of the upper spot; but, before reaching the costa, it is again bent upwards and slightly outwards to the margin.

Abdomen very pale cinereous, the segments marked by narrow greyish-fuscous transverse lines. *Exp. al.*, 19 mm.

Type. ♀. Mus. Wlsm.

Hab. Madeira; one specimen.

Intermediate varieties in which the fascia is slightly indicated appear to occur, but I have no specimens before me in condition for comparative description.

Blastobasis ochreopalpella, Wlsm.

Ecophora ochreopalpella, Wlsm., Ann. and Mag. N. H. (3 s.), I., 121 (1858);¹ Wkr., Cat. Lp. Ins. B. M., XXX., 1029 (1864).

Madeira.¹

Blastobasis marmorosella, Wlsm.

Ecophora marmorosella, Wlsm., Ann. and Mag. N. H. (3 s.), I., 128 (1858);¹ Wkr., Cat. Lp. Ins. B. M., XXX., 1028 (1864).

Porto Santo,¹ Northern Deserta.¹

Distinct from *seeboldiella*, Kreithn. See remarks under *fuscumaculella*, Rag. (ante p. 549).

Blastobasis nigromaculata, Wlston.

Gelechia nigromaculata, Wlston., Ann. and Mag. N. H. (3 s.), I., 121 (1858);¹ Wkr., Cat. Lp. Ins. B.M., XXIX., 627 (1864).

Madeira,¹ Southern Deserta;¹ Madeira, four specimens (Baker).

Blastobasis (?) *aurantiaca*, Wlston.

Gracilaria (?) *aurantiaca*, Wlston., Ann. and Mag. N. H. (3 s.), I., 122 (1858);¹ Wkr., Cat. Lp. Ins. B. M., XXX., 854 (1864).

Madeira, summer of 1855.¹

ΕΠΙΣΤΕΤΟΣ, Wlsm., gen. nov.

(ἐπιστητός, capable of being scientifically known.)

TYPE, *Epistetus divisus*, Wlsm.

Antennæ, ♂, strongly bifasciculate (3); basal joint enlarged, with a pecten, second and third joints also enlarged, the base of the fourth joint attenuate. *Maxillary palpi* overlapping the base of the haustellum. *Labial palpi* with the second joint somewhat longer than the apical, scarcely tufted at the end beneath. *Ocelli* absent. *Head* somewhat crested above, face smooth. *Thorax* smooth. *Forewings* narrow, elongate, pointed, the apex scarcely depressed, anal angle obsolete. *Neuration*, 12 veins, 7 and 8 from a common stem, both to above apex. *Hindwings* as broad as the forewings, lanceolate, subovate, abdominal angle somewhat pronounced, cilia (1). *Neuration* 7 veins, 3 and 4 coincident, 5 from the same stem as 3+4, 6 and 7 separate. *Abdomen*, ♂, somewhat flattened and laterally dilated. *Legs* with hind tibiæ slightly clothed.

Epistetus divisus, Wlsm., sp. n.

Antennæ fuscous, basal joint brownish. *Palpi* brownish. *Head* and *Thorax* bronzy-brown; face shining, pale cinereous. *Forewings* shining, bronzy-brown, with a slightly-waved narrow whitish line or fascia across their middle, scarcely farther from the base on the dorsal than on the costal margin; beyond this line the outer half of the wing is slightly paler than the base, and shows a faint indication of a transverse darker spot at the end of the cell,

sometimes connected with a few scales of the same colour on the costal and dorsal margins, and giving the appearance of a dentate shade or fascia ; a few darkened spots around the apex are followed by paler scales at the base of the cilia which are bronzy-grey. *Hindwings and cilia* bronzy-grey. *Abdomen* bronzy-grey. *Legs* bronzy-brown, the spurs pale cinereous, tarsal joints spotted with pale cinereous. *Exp. al.*, 12-17 mm.

Type. ♂ ♀. Mus. Wlsm.

Hab. Madeira ; five specimens.

Epistetus (?) *pica*, Wlsm., sp. n.

Antennæ, ♀, with a pecten on the basal joint ; brownish-grey, basal joint white. *Palpi* white, shaded externally on the second joint with brown. *Head and face* white. *Thorax* white, a brownish-fuscous band across its anterior margin and a spot of the same colour posteriorly, tegulæ white. *Forewings* narrow, elongate ; shining white, with numerous brownish-fuscous patches and dots ; an elongate brownish-fuscous patch at the base of the costal margin reaches to the fold on its inner half ; this is followed before the middle of the wing by a similar costal patch tending obliquely outwards and narrowly confluent with a somewhat triangular dorsal patch of the same colour which reaches to the middle of the dorsal margin, thus forming an oblique fascia attenuated in the middle ; beyond the middle of the wing on the costal margin is a narrow elongate patch, beneath which are a few brownish-fuscous dots tending in the direction of a triangular dorsal patch beyond it a little before the anal angle ; a conspicuous costal patch lies before the apex and is followed by a series of small spots around the apex and apical margin to the anal angle ; an outwardly oblique narrow patch of the same colour lies near the base of the dorsal margin, reaching to the fold, and is continued narrowly along the margin to the base ; a single spot or dot lies on the lower edge of the discal cell above the outer end of the fold ; all these markings are more or less surrounded by pale ferruginous scales, but in some specimens these are scarcely apparent ; cilia grey, whitish towards the apex. *Hindwings* grey, with grey cilia. *Abdomen* grey. *Legs* brownish, the joints of the tibiæ and tarsi indicated by whitish spots. *Exp. al.*, 15-17 mm.

Type. ♀. Mus. Wlsm.

Hab. Madeira ; two specimens.

In the absence of the ♂ this species cannot be located with certainty.

HYPATIMA, Hb.

Hypatima fasciata, Stn.

Gelechia fasciata, Stn., Ann. and Mag. N. H. (3 s.), III., 213 (1859);¹ Wkr., Cat. Lp. Ins. B. M., XXIX., 628 (1864).

Deserta Grande;¹ Madeira, Funchal, and The Mount, five specimens (Baker).

LAVERNINÆ.

LAVERNA, Crt.

Laverna vittata, Wlston.

Laverna vittata, Wlston., Ann. and Mag. N. H. (3 s.), I., 122 (1858);¹ Wkr., Cat. Lp. Ins. B. M., XXX., 885 (1864).

Madeira.¹

Laverna rebeli, Wlsm., sp. n.

Antennæ as long as the forewings; pale fawn. *Palpi* with second joint much longer than the apical, closely clothed and tufted beneath; fawn-whitish on their inner sides, externally clouded with umber-brown. *Head and face* stone-whitish. *Thorax* fawn-whitish. *Forewings* fawn-whitish, slightly tinted by shining steel-grey scales on the paler portions and much clouded on the outer two-thirds with umber-brown; a patch of raised dark umber-brown scales lies on the middle of the fold and extends obliquely outwards above it, forming the inner margin of a wide umber-brown dorsal patch; this patch and the other umber-brown shadings beyond it are sprinkled with scattered scales of a darker shade which are especially noticeable around the apex of the wing at the base of the cilia; there is also a small umber-brown shade at the extreme base of the costal margin; cilia pale fawn. *Hindwings* fawn-grey, with paler cilia. *Legs* fawn-whitish, hind tarsal joints shaded with brownish and spotted with whitish externally. *Abdomen* missing. *Exp. al.*, 14-16 mm.

Type. ♂ ♀. Mus. Wlsm.

Hab. Madeira; three specimens.

CHAULIODUS, Tr.

Chauliodus daucellus, Peyr.

Madeira; five specimens.

ASYCHNA, Stn.

Asychna insularis, Wlston.

Asychna insularis, Wlston., Ann. and Mag. N. H. (3 s.), I., 122 (1858);¹ Wkr., Cat. Lp. Ins. B. M., XXX., 887 (1864).

Madeira.¹

COSMOPTERYGINÆ.

COSMOPTERYX, Hb.

Cosmopteryx pulcherrimella, Chamb.

Madeira; nine specimens.

Hitherto only recorded from the United States.

GRACILARIANÆ.

GRACILARIA, Hw.

Gracilaria staintoni, Wlston.

Gracilaria staintoni, Wlston., Ann. and Mag. N. H. (3 s.), I., 121 (1858);¹ Wkr., Cat. Lp. Ins. B. M., XXX., 854 (1864).

Madeira;¹ The Mount, two specimens (Baker).

Gracilaria roscipennella, Hb.

Madeira; San Antonio da Serra, seventeen specimens.

Gracilaria scalariella, Z.

Madeira; twenty-one specimens.

LITHOCOLLETIS, Hb.

Lithocolletis messaniella, Z.

Madeira; nine specimens.

LYONETIANÆ.

PHYLLOBROSTIS, Stgr.

Phyllobrostis daphneella, Stgr.

Madeira; one specimen.